

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims:**

1. (original): An optical transmission medium that comprises, in a nonlinear optical transmission medium, carbon nanotubes having an optical nonlinear characteristic are introduced.
2. (original): The optical transmission medium according to claim 1, wherein said nonlinear optical transmission medium is a single-mode optical fiber.
3. (original): The optical transmission medium according to claim 2, wherein a core of said optical fiber is composed of any material of bismuth oxide, a synthetic resin comprising bismuth oxide, a glass-based component comprising bismuth oxide, and a fluoride-based component comprising bismuth oxide.
4. (currently amended): The optical transmission medium according to claim 1 ~~any of claims 1 to 3~~, wherein the melting point of said nonlinear optical transmission medium is 1200°C or less.
5. (currently amended): The optical transmission medium according to claim 1 ~~any of claims 1 to 4~~, wherein said optical transmission medium is an optical fuse.

6. (currently amended): The optical transmission medium according to claim 1 ~~any of claims 1 to 5~~, wherein said optical transmission medium is a dispersion compensating element.

7. (currently amended): The optical transmission medium according to claim 1 ~~any of claims 1 to 6~~, wherein said carbon nanotubes are soluble in organic solvents.

8. (new): The optical transmission medium according to claim 2, wherein the melting point of said nonlinear optical transmission medium is 1200°C or less.

9. (new): The optical transmission medium according to claim 3, wherein the melting point of said nonlinear optical transmission medium is 1200°C or less.

10. (new): The optical transmission medium according to claim 2, wherein said optical transmission medium is an optical fuse.

11. (new): The optical transmission medium according to claim 3, wherein said optical transmission medium is an optical fuse.

12. (new): The optical transmission medium according to claim 2, wherein said optical transmission medium is a dispersion compensating element.

13. (new): The optical transmission medium according to claim 3, wherein said optical transmission medium is a dispersion compensating element.

14. (new): The optical transmission medium according to claim 2, wherein said carbon nanotubes are soluble in organic solvents.

15. (new): The optical transmission medium according to claim 3, wherein said carbon nanotubes are soluble in organic solvents.